



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,917	03/05/2002	Emilio Castano Graff	12,354	6046

7590 10/14/2003

William W. Haeffliger
Suite 512
201 So. Lake Ave.
Pasadena, CA 91101

EXAMINER

HOPKINS, ROBERT A

ART UNIT PAPER NUMBER

1724

DATE MAILED: 10/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No. 10/087,917	Applicant(s) GRAFF ET AL.	
	Examiner Robert A Hopkins	Art Unit 1724	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 3 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
- b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): See Continuation Sheet.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

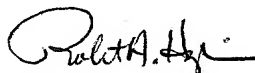
Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: _____

Claim(s) withdrawn from consideration: _____

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
10. ☐ Other: _____


 Robert A Hopkins
 Primary Examiner
 Art Unit: 1724

Continuation of 3. Applicant's reply has overcome the following rejection(s): claims 1,3,5-28,35, and 37-40 are allowed.. Claims 2,29,31,32,33,34, and 36, and all claims depending on those claims would also be allowable upon submission of a supplemental after final which amends the claims according to the suggestions given in the attachment..

Claim 2 should delete the limitations "means to inject a treatment fluid into said system for purposes of gas treatment" and should be amended similar to claim 1 , for example --vanes associated with said centrifuge means to receive and pass the carbon dioxide and methane mixture, with turbine effect. Examiner notes that removing "gas" before "centrifuge does not change the scope of the claim, because the centrifuge is directed towards separating two gases, carbon dioxide and methane, and according to claim 6 and the specification, treatment fluid is only injected into the system associated with the gas/liquid separator(112), and not the gas centrifuge for separating carbon dioxide and methane as shown by separator 113 in figure 6. Correction is requested.

Claim 29 still recites "there being vanes associated with at least one of said centrifugal means to receive and pass a mixture of gases or a gas/liquid mixture with turbine effect". Examiner notes that claim 29 recites "a centrifugal means to separate free liquids from gas, light liquids from heavy liquids, and solids from liquids", however such a structure, as indicated as the first box in the flow diagram in figure 6 and by the specification, is a conventional structure which does not include vanes. Therefore, examiner suggests inserting --first-- in line 3 before "centrifugal", --second-- in line 6 before "centrifugal", --third-- in line 9 before "centrifugal, removing "at least one of" in lines 10-11, and inserting --second and/or third-- in line 11 before "centrifugal--, so that the vanes are only associated with the gas/liquid centrifugal means(112 in figure 6) and the gas centrifuge(113 in figure 6).

Claim 31 still recites "there being vanes connected with at least one of

said centrifugal means to receive a flowing stream of liquid, with turbine effect.

Examiner notes that claim 31 recites "a centrifugal means to separate free liquids from gas, light liquids from heavy liquids, and solids from liquids", however such a structure, as indicated as the first box in the flow diagram in figure 6 and by the specification, is a conventional structure which does not include vanes. Therefore, examiner suggests inserting --first-- in line 3 before "centrifugal", --second-- in line 6 before "centrifugal", removing "at least one of" in lines 9-10, and inserting --second-- before "centrifugal" in line 10, so that the vanes are only associated with the gas/liquid centrifugal means(112 in figure 6).

Examiner notes claim 33 recites "a first centrifugal means to separate free liquids from gas, light liquids from heavy liquids, and solids from liquids, a second centrifugal means to process said gas thereby to separate heavy gases from light gases". However examiner notes from figure 6 and from the 112 paragraph 1 rejection of the previous office action that a centrifugal means for separating liquid from gas is clearly located after the "first centrifugal means to separate free liquids from gas, light liquids from heavy liquids, and solids from liquids" and before "the second centrifugal means to process said gas thereby to separate heavy gases from light gases". Examiner notes that the centrifugal means for separating liquid from gas appears to be critical to the separation efficiency of the final gas centrifuge, and therefore such a missing centrifugal means should be inserted. Examiner suggests using the same claim construction as claim 29, which recites "a centrifugal means to separate liquids from said gas by lowering pressure and temperature and separating the formed

liquids from the gas” Examiner also notes that in making such an amendment, a --second-- should be inserted before “centrifugal” in the above suggested limitations and “second” in line 6 should be changed to --third-- to reflect three claimed centrifugal means.

Claim 32 recites “and means to inject a treatment fluid to flow into the system for purposes of fluid treatment”. However, examiner notes claim 32 lines 6-7 recites “a centrifugal means to process said gas thereby to separate heavy gases from light gases”. Examiner notes from above statements that the “gas centrifugal means of lines 6-7” does not include a “means to inject a treatment fluid”, and doing so would seem to compromise the overall efficiency of the gas centrifuge. Therefore, examiner suggests inserting --first-- before “centrifugal” in line 3 , --second-- before “centrifugal” in line 6, deleting “system’ in line 9 and inserting --first centrifugal means--, so that only the “first centrifugal means” includes a means to inject a treatment fluid, as also shown by figure 6.

Claim 34 recites “and means to inject a treatment fluid to flow into the system for purposes of fluid treatment”. However, examiner notes claim 34 lines 6-7 recites “a centrifugal means to process said gas thereby to separate heavy gases from light gases”. Examiner notes from above statements that the “gas centrifugal means of lines 6-7” does not include a “means to inject a treatment fluid”, and doing so would seem to compromise the overall efficiency of the gas centrifuge. Therefore, examiner suggests inserting --first-- before “centrifugal” in line 3 , --second-- before “centrifugal” in line 6, deleting “system’ in line 9 and inserting --first centrifugal means--, so that only the “first centrifugal means”

includes a means to inject a treatment fluid, as also shown by figure 6.

Claim 36 recites "there being means to inject a treatment fluid to flow into the system for purposes of fluid treatment". However, examiner notes claim 36 lines 1-2 recites "a system including a gas liquid separator and a gas centrifuge means". Examiner notes from above statements that the "gas centrifuge" does not include a "means to inject a treatment fluid", and doing so would seem to compromise the overall efficiency of the gas centrifuge. Therefore, examiner suggests deleting "system" in line 8 and inserting --gas liquid separator--, so that only the gas liquid separator includes a means to inject a treatment fluid, as also shown by figure 6.

Examiner notes that the above specific changes would seem to place the application in condition for allowance, as there are no prior art rejections which are outstanding to the claims.